UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,435	02/09/2001	Tomohisa Arai	017447/0171	6673

7590 07/02/2002

Richard L. Schwaab
FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, DC 20007-5109

EXAMINER	
SHEEHAN, JOHN P	
ART UNIT	PAPER NUMBER
1742	8

DATE MAILED: 07/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/779,435	Applicant(s) ARAI ET AL.
	Examiner John P. Sheehan	Art Unit 1742

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 April 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) *14-22,27-32,34 and 36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,23-26,33 and 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1 to 13, 23 to 26, 33 and 35, in Paper No. 7 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected to because of the following informalities:

I. The Examiner objects to the specification at paragraph 0004. This paragraph refers to US Patent No 478,258 (which was cited in the IDS submitted February 9, 2001). However, said patent is dated July 5, 1892, is entitled, "Matrix-Making Machine" and appears to have nothing to do with the instantly disclosed and claimed invention. The Examiner requests clarification.

Claim Rejecti ns - 35 USC § 112

4. Claims 1 to 13 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. The claims are indefinite in view of the phrase, "is interstitially introduced" (claim 1, line 5). In view of the use of the term "is" it is not clear whether the nitrogen has actually been introduced or whether the nitrogen is merely capable of being introduced. Further, it is not clear whether the introduced nitrogen remains in the intensities or whether the nitrogen actually remains in the mother alloy at all.

II. The meaning of the phrase "a nitrogen compound (nitride)" (claim 1, line 6) is not clear. The phrase, "a nitrogen compound" encompasses any and all compounds that contain nitrogen, whereas the term "(nitride)" is limited to "a binary compound of nitrogen and a metal" (see, Hackh's Chemical Dictionary, page 457, copy attached to this Office action). The use of both terms, "a nitrogen compound" and "(nitride)" renders the claims indefinite because it is unclear whether the claims are limited to "a nitrogen compound" or to "nitrides". See MPEP § 2173.05(d).

III. In claim 2, it is not clear whether the recited nitrogen content reflects the total nitrogen content including the interstitial nitrogen and the nitrogen in the nitride.

IV. In claims 3 and 4, it is not clear what it is that applicants are attempting to claim.

V. In claim 7, line 4, the meaning of the phrase, "film due to a...process". Is not clear. In the context of the claims the meaning of the phrase, "due to" is not clear.

VI. In claim 24, line 7, "the nitrogen compound" lacks a clear antecedent.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 to 13, 23 to 26, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Pinkerton et al. (Pinkerton, US Patent No. 5,395,459) or Hirosawa et al. (Hirosawa, US Patent No. 5,425,818).

Each of the references teaches a rare earth-transition metal-nitrogen alloy having a composition that overlaps the alloy composition recited in the instant claims and which is made by a process that overlaps the instantly claimed process (Pinkerton, column 1, line 45 to column 2, lines 10 and Hirosawa, column 1, line 55 to column 2, line 37).

The claims and the references differ in that the references are silent with respect to the presence of a nitride in the alloy and do not teach the exact same proportions and process conditions as recited in the claims.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy composition and the process taught by each of the references and overlaps the instantly claimed alloy and process thereby establishing a prima facie case of obviousness, In re Malagari, 182 USPQ 549 and MPEP 2144.05. Further, the alloys taught by the references have compositions that overlap the alloy composition recited in the instant claims and which are made by a process which is similar to if not the same as applicants' process of making the instantly claimed alloy, therefore the alloys taught by the references would be expected to posses all the same properties as recited in the instant claims, including the presence of a nitride, In re Best, 195 USPQ, 430 and MPEP 2112.01.

> "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada,15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best,195 USPQ 430, 433 (CCPA 1977)." see MPEP2112.01.

Further, in view of the claim language, "0.05 or less" (claim 1, the last line) the instant claims encompass the absence of a nitride.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (703)

308-3861. The examiner can normally be reached on T-F (6:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

John P. Sheehan
Primary Examiner
Art Unit 1742

jps
June 27, 2002